

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	15 October 2022
Team ID	PNT2022TMID47693
Project Name	Project - IoT Based Safety Gadget for Child Safety Monitoring and Notification.
Maximum Marks	4 Marks

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

<b><u>FR No.</u></b>	<b><u>Functional Requirement</u></b>	<b><u>Sub Requirement (Story / Sub-Task)</u></b>
FR-1	User Registration	<ul style="list-style-type: none"><li>• Registration through Forms.</li><li>• Registration through Gmail.</li></ul>
FR-2	User Confirmation	<ul style="list-style-type: none"><li>• Confirmation via OTP.</li><li>• Confirmation via Email.</li></ul>
FR-3	Installation of App	<ul style="list-style-type: none"><li>• Installation through app store..</li><li>• Installation through links</li></ul>
FR-4	Virtual	<ul style="list-style-type: none"><li>• Find the location of the child by the user.</li></ul>
FR-5	Documentation	<ul style="list-style-type: none"><li>• Datas regarding the Child's location are stored in the database.</li><li>• It includes Parent ID, kid ID, remoteness, etc.</li></ul>
FR-6	Spotting Child's location	<ul style="list-style-type: none"><li>• Spotting through GPS trackers.</li></ul>
FR-7	Geo-caching	<ul style="list-style-type: none"><li>• The surveillance of location through use of the GPS to track the location of the child remotely.</li></ul>
FR-8	GPS Modules	<ul style="list-style-type: none"><li>• GPS modules which contain processors and antennas that directly receive data of the child sent by satellites.</li></ul>
FR-9	Locality History	<ul style="list-style-type: none"><li>• With the locality history we can have the history of the geographic position of the child.</li></ul>

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

<b><u>FR No.</u></b>	<b><u>Non-Functional Requirement</u></b>	<b><u>Sub Requirement (Story / Sub-Task)</u></b>
NFR-1	Usability	<ul style="list-style-type: none"><li>• The gadget has the Global System for Mobile Communication which is used for tracking the child and in cases such as theft it immediately alerts the child's parents.</li></ul>
NFR-2	Security	<ul style="list-style-type: none"><li>• Whenever the child goes out of the specified range it immediately notifies the parents through Geofencing.</li></ul>
NFR-3	Reliability	<ul style="list-style-type: none"><li>• Probability of success</li><li>• Easy to use</li><li>• Environment friendly</li></ul>
NFR-4	Performance	<ul style="list-style-type: none"><li>• The gadget which is being designed helps the parents to have a track on their Child at all times.</li><li>• In case of an undesirable situation it immediately notifies the parents about the Child's location.</li></ul>
NFR-5	Availability	<ul style="list-style-type: none"><li>• It tracks the child even in the most crowded areas, extremely rough weather conditions, etc.</li></ul>
NFR-6	Scalability	<ul style="list-style-type: none"><li>• Continuously tracks the child and immediately notifies the parents.</li><li>• The locality's history is also recorded.</li></ul>
NFR-7	Localization	<ul style="list-style-type: none"><li>• Devices may have the capability to adapt dynamically and change based on their conditions.</li></ul>